Texas Children's

DEPARTMENT NAME

GASTROSTOMY TIPS

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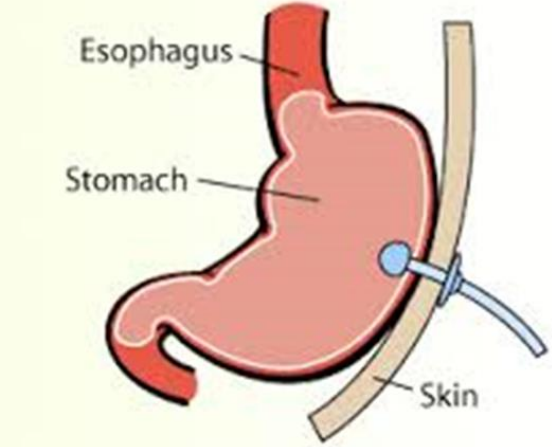
WHAT IS A GASTROSTOMY?

- Surgically made path (stoma) or opening into stomach from the abdominal wall.
- Gastrostomy goes into the stomach, passes through the muscle and fatty layers and comes out the stoma.
- The stoma forms around gastrostomy in 6-8 weeks.
  - The healing around the gastrostomy is similar to the tract formation after a body piercing.



Gastrostomy Tube Placement

GASTROSTOMY PLACEMENT

- Surgical Approach
  - Laparoscopic:
    - Minimally invasive, direct visualization (Most common approach at TCH)
  - Open/ Stamm Procedure:
    - Preferable when patients have hx of abdominal surgeries, adhesions, or cardiac patients unable to tolerate laparoscopic approach
  - Percutaneous Endoscopic Gastrostomy (PEG)
    - One operator uses endoscope and second locates appropriate site on abdominal wall with trans-illumination, guidewire advanced

INDICATIONS FOR GASTROSTOMIES

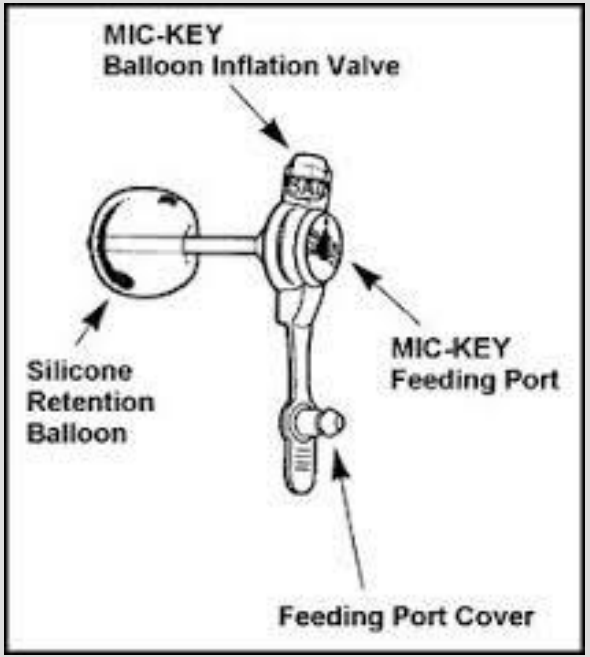
- Long term enteral feeding requirement
- Inability to maintain nutrition
- Patient's at risk for aspiration

TYPES OF GASTROSTOMIES

1. **Gastrostomy button with BALLOON**
2. Gastrostomy button NON-BALLOON
3. Gastrostomy Tubes

GASTROSTOMY BUTTON WITH BALLOON

- Type of g-button that requires inflation of a **balloon** to keep the button in place
  - The inflated balloon keeps the gastrostomy up against the stomach wall.
- Two Ports
  - Feeding (center) port is for medications and nutrition
  - Balloon (side) port is for water **only** to inflate the balloon



GASTROSTOMY BUTTON NON-BALLOON

Two types:

- MiniOne Non-Balloon
- Bard Button

AMT MiniOne Non-Balloon

Bard Button

- Secured in place by mushroom-like end
- One port only (Feeding port for medications and nutrition)
- Must be replaced by physician or APP

GASTROSTOMY TUBE

- These are usually placed temporarily before placing a button in 8 weeks- the time it takes for the gastrostomy tract to heal.
- Usually used on neonates and cardiac patients.

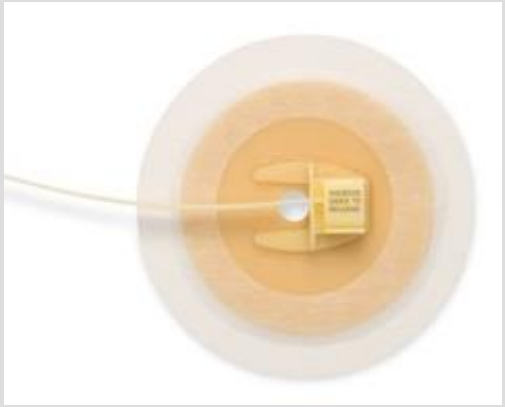
Mic-Tube

Pezzer

Malecot

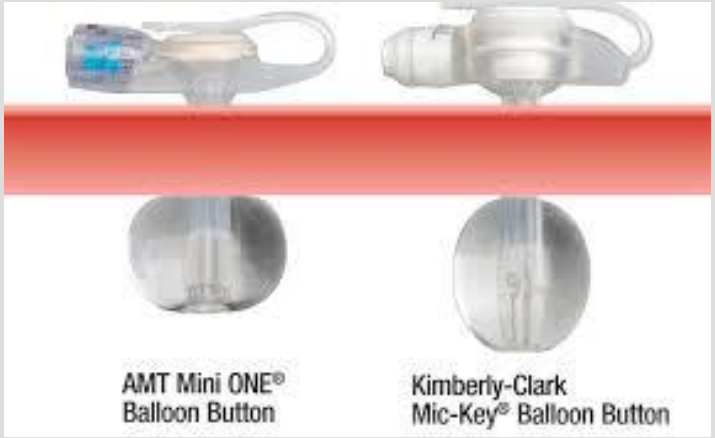
STABILIZING GASTROSTOMY TUBES

- Adhesive Gtube stabilizers are needed for both Malecot and Pezzer tubes.
- Also known as Holder Tube/ Vertical Drain (Order #TSUP27311)
- Need to be replaced every 5- 7 days.



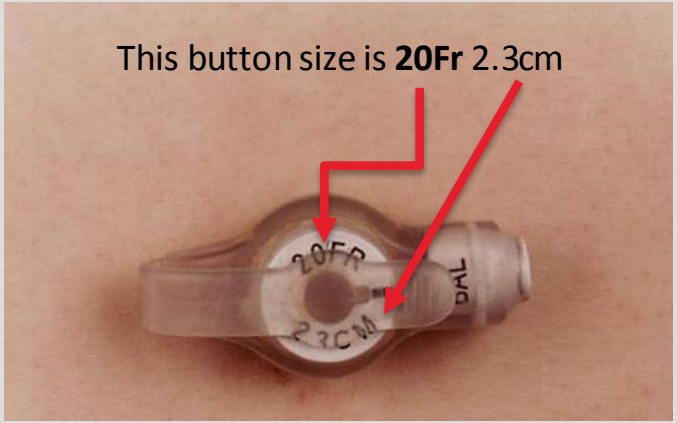
MOST GASTROSTOMY BUTTONS USED HAVE A BALLOON

1. Mic-key balloon (most common)
2. Mini ONE balloon
   - Lower profile



IDENTIFYING THE SIZE

- All tubes are measured in “Fr” or French size. This is a measure of the *diameter* of the tube itself.
- The “cm” is the *length* of tube needed to go through the abdomen down into the stomach.



WHEN TO EXCHANGE GASTROSTOMY

- Routine exchange
  - q6 months

CARING FOR A GASTROSTOMY

- Cleanse with mild soap and water **only**. Use Q-tip and gently clean under button daily.
- Keep the area dry! Excessive moisture can cause skin irritation or breakdown.
- Avoid rotating or pulling gastrostomy.
- All tubes should be rinsed out after using with warm soapy water and laid out to dry. Do not place tubes in the dishwasher.

CARING FOR A GASTROSTOMY CONTINUED

- A dressing is not routinely necessary. If the tube is leaking, use only one piece of split gauze unless otherwise ordered.

WHAT TO DO WHEN THE TUBE IS CLOGGED:

- Warm water is often effective and should be front line treatment.
  - 60mL syringe filled with lukewarm water
  - Do not try to force water in, gently and firmly push and pull the plunger back and forth
  - Clamp the tube for 5-20 minutes allowing the water to "soak" and repeat if necessary.
- If clogging persists, replace for new button if >8 weeks after surgery
- If clogging persists, refer to pediatric surgery

HOW TO AVOID CLOGGED FEEDING TUBES

- Always flush tube immediately before and after feeding with at least 30mL of water.
- Never mix medication with tube feeding unless advised to do so by healthcare practitioner.
- Flush tube with at least 5mL of water between each medication if more than one is given. Request liquid medications if possible.
- Crush medicine to a fine powder and disperse in 5mL of warm water. Always check with pharmacist first to be sure it is okay to crush a particular medicine.

ACTIVITY RESTRICTIONS

- Gtube:
  - 6 weeks no belly time
  - ok for modified prone
- **Gbutton**:
  - 2 weeks no belly time
  - ok for modified prone

Modified Prone:

1. Place infant chest-to-chest with caregiver while supporting their bottom to limit irritating the gastrostomy site.
2. Place infant prone over caregiver's forearm, support head in crook of elbow and braced against caregivers body.
3. Place infant on pillow, over towel roll or on lap being careful not to put pressure on the gastrostomy site.

TROUBLESHOOTING

1. Dislodgement
2. Leakage

TROUBLESHOOTING- DISLODGEMENT

- If *LESS* than 8 weeks since surgical placement

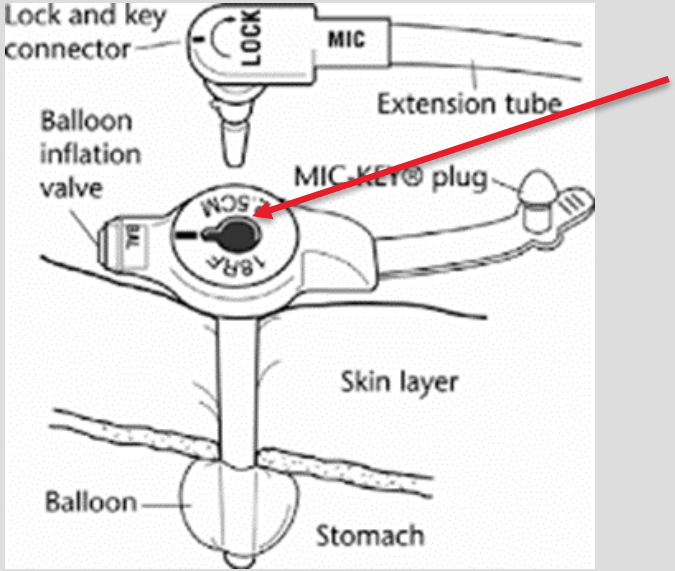
Patient should **report to ER/call Pediatric Surgery** to have the device replaced. The risk of the device not being placed in the proper tract is very high as the tract is not yet stable. Patient has TWO hours to have button replaced before the site closes and surgical intervention is required.

A Gtube Contrast Study MUST BE ORDERED immediately after replacing button to ensure button is in the correct location.

- If *GREATER* than 8 weeks since surgical placement

If caregiver is comfortable replacing device (Balloon buttons only) they may do so.

CAUSES OF LEAKING



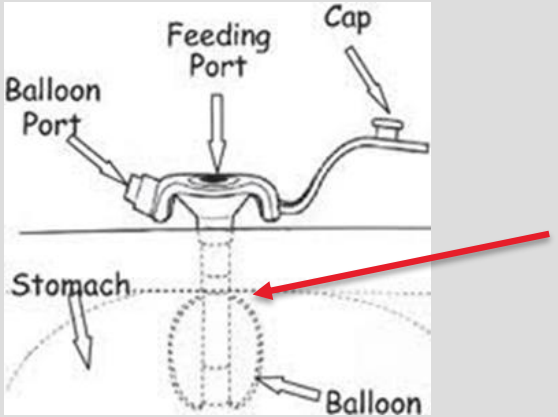
Is the button broken?

- Broken Valve
- Formula/medication coming through button itself

CAUSES OF LEAKING

Is there enough water in the balloon?

- The balloon in each button should be appropriately filled with sterile water per manufacturer recommendations (okay to use tap water or normal saline if needed).
  - How much water to put in balloon:
    - 12Fr= 3-5cc
    - 14Fr and up= 5-7cc



CAUSES OF LEAKING

Was the gastrostomy site just created?

- It is expected for new gastrostomy sites to leak. The tract is usually created larger than the device placed, the stoma will shrink down to size.

Is the caregiver venting?

- Remember air takes up space similar to fluid. If the patient is not tolerating feeds and is vomiting or presents with leaking, venting should be recommended.

CAUSES OF LEAKING

Is the gastrostomy button the correct size? - Is the button stem too short or long?

- Patient should be seen by Pediatric Surgery staff to be measured for proper size and fit.

OTHER CAUSES FOR IMPROPER FIT

- **Has the child gained weight?**
  - Weight gain is good! May need longer tube (cm size), refer to pediatric surgery for sizing
  - Never increase diameter (French size)
- **Is there granulation tissue present?**
  - Granulation tissue can be treated

GRANULATION TISSUE

- An expected part of the healing process
- Forms as a result of friction or excessive moisture to the area
- Tissue is friable and may bleed occasionally
- Treatment options:
  1. Silver Nitrate (once daily for three consecutive days)
     - **Ensure site is completely dry before applying silver nitrate as it will cause a chemical burn on normal skin.
  2. Triamcinolone cream (o.5% TID for up to 3 weeks)
  3. Surgical excision if severe

SITE INFECTION

- Physical Exam: Erythema, purulent drainage, swelling, tender to palpation, indurated
- Fever may be present
- Treatment may include oral antibiotics, topical antibiotic ointment, or I&D (if abscess present)

GRANULATION TISSUE VS INFECTION

- Granulation tissue

- Infection

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HOW TO EXCHANGE A GASTROSTOMY

REVIEW: THINGS TO THINK ABOUT BEFORE EXCHANGING

1. Is this a Gastrostomy button WITH a balloon?
   - If no= call Pediatric Surgery, if yes= continue
2. Is this a new Gastrostomy?
   - If <8 weeks since surgical placement = call Pediatric Surgery
   - If >8 weeks since surgical placement = continue
3. Do I have the correct size?

HOW TO EXCHANGE A GASTROSTOMY TUBE

- Gather all supplies (new g tube kit, lubricating gel, empty syringe, gauze, small towel)
- Fill new syringe with 5cc of sterile water (normal saline or tap is ok)
- Properly lubricate new button
- Deflate balloon of indwelling G button with empty syringe via balloon port
- Remove button with gentle extraction
- Immediately place new lubricated button into stoma with gentle pressure
- Inflate new balloon with 5cc of fresh sterile water
- Dry excess moisture, lubricating gel, or gastric contents around skin
- Connect feeding tube and use large syringe included in kit to aspirate back stomach contents to ensure proper placement.

FEEDING TYPES

GASTROSTOMY FEEDING OPTIONS:

- **Bolus Feeding**: a prescribed amount of formula is given several times a day over a short period of time (typically without a pump)
- **Intermittent Feeding**: a specific amount of formula is given several times a day over a prescribed period of time
- **Continuous Feeding**: a constant amount of formula is given per hour via a pump

TYPES OF FEEDING METHODS:

- **Gravity** Method: gravity causes formula to flow into the feeding tube; a pump is not used
  - The flow of the feeding can be adjusted by raising or lowering the height of the tube.
- **Syringe** Method: formula is given several times a day using a syringe
- **Pump** Method: an electrical pump is used to deliver a prescribed amount of formula each hour

ADMINISTERING FEED AND/OR MEDICATION

- All medications and feeds may be administered via gastrostomy device as long as it is milk consistency or thinner.
- **ALWAYS** use the extension to administer a feed and/or medication.
- Flush gastrostomy device with water after administering feed and/or medication. **If patient is on fluid restriction discuss with provider**
- Disconnect extension set when not in use to prevent accidental dislodgement of device.
- Make sure the formula is room temperature. Cold formula can cause abdominal cramping and diarrhea.